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REMARKS

The applicants have carefully considered the Office action dated April 5, 2004

and the references it cites. By way of this amendment, claims 5, 33, and 37 have been

amended. The applicants note that amendments were made to claims 5, 33, and 37 to

remove the "step" language to make it clear that *none* of the pending claims are step-

plus-function claims falling under 35 U.S.C. § 112, paragraph 6. As a result, the

amendments to claims 5, 33, and 37 are either broadening or do not change the scope

of the claims. Consequently, like the other broadening and/or clarifying amendments

mentioned above, the amendments removing the "step" language from the pending

claims do not give rise to prosecution history estoppel or limit the scope of

equivalents of the claims under the doctrine of equivalents. New claims 63-69 have

been added. Claims 1, 5-9, 12, 17-20, 33, 37-42, 44, 48-51, and 54-69 are pending at

issue, with claims 1, 12, 33, 44, 54, 59, and 63 being independent. As explained

below, it is respectfully submitted that all pending claims are in condition for

allowance and favorable reconsideration is respectfully requested.

Claims 1, 5-9, 12, 17-20, 33, 37-42, 44, 48-51, and 54-62:

Turning to the art rejections, the Office action rejects claims 1, 5-9, 12, 17-20,

33, 37-42, 44, 48-51, and 54-62 as unpatentable over one or more of Tsukamoto et al.

(U.S. Pat. No. 5,796,828), Folmsbee (U.S. Pat. No. 6,308,256), Armbruster et al.

(U.S. Patent No. 5,208,853), and Gannett et al. (U.S. Pat. No. 3,944,745). The

applicants respectfully traverse each of the rejections.

The applicants respectfully submit that independent claims 1, 12, 33, 44, 54,

and 59 are patentable over the applied combination of Tsukamoto et al. and Folmsbee.

Each of the independent claims recites a method, an apparatus, or a computer-

readable medium that alters a bit pattern of data bits by inverting bits in selected bit

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positions of the data bits and/or scrambling bits in the selected bit positions of the data bits within a hardware platform. None of the cited references, whether taken alone or in combination, teaches or suggests such a method, an apparatus, or a computer-readable medium.

While Tsukamoto et al. generally discloses a satellite television broadcasting system that stores and retrieves data signals, there is no teaching or suggestion of altering a bit pattern of data bits by inverting bits in selected bit positions of the data bits and/or scrambling bits in the selected bit positions of the data bits within a hardware platform. Instead, the system of Tsukamoto et al. includes an access controller that enables/disables an encipherer prior to storing a video program on a storage medium. The access controller selectively enables and disables the encipherer based on access-control signals transmitted by a broadcasting station. For example, the access controller disables the encipherer in response to a "full-access" signal so that a video program can be unconditionally recorded (i.e., unencrypted) on a storage medium and reproduced. *See* Tsukamoto et al., col. 5, lines 10-16 and col. 6, lines 32-46. In another example, the access controller enables the encipherer in response to a "no repro" signal so that the video program is encrypted prior to recording the video program on the storage medium. *See* Tsukamoto et al., col. 6, lines 47-59. The focus of Tsukamoto et al. is to control the encryption operation (e.g., via the encipherer) of the receiving system based on a command from the broadcasting station (e.g., a central or head end location controls the manner in which a video program is recorded onto a medium). In fact, it was acknowledged on page 3 of the Office action dated April 5, 2004, that Tsukamoto et al. fails to disclose or suggest altering a bit pattern of data bits by inverting bits in selected bit positions of the data bits and/or scrambling bits in the selected bit positions of the data bits.

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To cure the deficiencies of Tsukamoto et al., the examiner attempts to use

Folmsbee. However, nowhere does Folmsbee disclose or suggest altering a bit pattern

of data bits by inverting bits in selected bit positions of the data bits and/or scrambling

bits in the selected bit positions of the data bits within a hardware platform. This is

because Folmsbee is directed to a central processing unit that modifies a program

having encrypted instructions in accordance with an encryption key so that it is

unnecessary to decrypt the encrypted instructions into standard op codes prior to

execution of the program. Contrary to the examiner's assertion regarding the

Folmsbee disclosure, Folmsbee discloses processing instruction codes to operate

encrypted instructions in a computer without decryption of the encrypted instructions.

The portion of Folmsbee to which the examiner refers does not disclose or support

inverting or scrambling bits to prevent unauthorized use of the data bits. In particular,

col. 6, lines 33-61 of Folmsbee merely disclose a system that stores the encrypted

instructions in multiple registers, and different functions of multiple multiplexers

associated with the registers. For example, a sequencer determines a particular

sequence that the registers deliver the encrypted instructions for processing without

decrypting the encrypted instructions. Further, Folmsbee clearly states that the

primary purpose of its system is instruction encryption and "not about data that is

being scrambled." *See* Folmsbee, col. 16, lines 17-25. The remaining references are

even further removed from the subject at hand. Armbruster is directed to a split key

decryption system that generates an encrypted unique variable using a terminal serial

number, and Gannett is directed to a secret signaling system that is dependent upon

use of a secret key.

Because none of the cited references teaches or suggests altering a bit pattern

of data bits by inverting bits in selected bit positions of the data bits and/or scrambling

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bits in the selected bit positions of the data bits within a hardware platform, it follows that no combination of these references can render independent claims 1, 12, 33, 44, 54, and 59 obvious.

Furthermore, there is no motivation to modify the system disclosed in Tsukamoto et al. or to combine such a system with Folmsbee. Specifically, Tsukamoto et al. is focused on selectively encrypting and decrypting a video program based on an access-control signal while Folmsbee is focused on processing encrypted instructions only (i.e., "no actually decryption algorithm is needed"). *See* Folmsbee, Abstract, and col. 6, lines 62-67. As such, to replace the Tsukamoto et al. system, which selectively encrypts and decrypts data signals, with the encrypted-instruction processing system of Folmsbee would destroy the Tsukamoto et al. system by rendering it a system in which no decrypting is performed. The law is quite clear that, "[i]f the proposed modification or combination of the prior art would change the principle of operation of the prior art invention, then the teachings of the references are not sufficient to render the claims prima facie obvious." MPEP § 2143.01, citing, In re Ratti, 270 F.2d 810 (C.C.P.A. 1959) (emphasis added). Because the examiner's proposed combination of Tsukamoto et al. and Folmsbee unmistakably changes the principle of operation the Tsukamoto et al. invention, the proposed modification of Tsukamoto et al. is improper as a matter of law and cannot render independent claims 1, 12, 33, 44, 54, and 59 obvious.

As explained above, none of the cited references nor their combination, even if there were motivation for such a combination, teaches or suggests the claimed subject matter obvious. Therefore, each of the independent claims and all claims depending therefrom must be allowed.

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Claims 63-69:

New independent claim 63 is also allowable. Claim 63 recites a method that alters the bit pattern without receiving from a service provider a control signal indicative of a characteristic associated with storing the bit pattern on a medium. None of the cited references nor their combination, even if there were motivation for such a combination, discloses or suggests such a method. For example, the Tsukamoto et al. reference employs access-control signals from a central or head end location (e.g., the broadcasting location 101) to define the conditions or limitations associated with recording and reproducing a video program. *See* Tsukamoto et al., col. 5, lines 10-16 and col. 6, lines 32-59. As explained above, there is no provision in Tsukamoto et al. for controlling the encryption operation locally within a hardware platform (e.g., the receiving system controls the manner in which a video program is recorded onto a medium without instructions from a central or head end location). Therefore, Tsukamoto et al. does not teach or suggest the method recited in claim 63. Accordingly, independent claim 63 and all claims depending therefrom are allowable.

For these reasons, it is respectfully submitted that the pending claims are in condition for allowance. If, for any reason, the examiner is unable to allow the application in the next Office action, the examiner is encouraged to telephone the undersigned attorney at the telephone number listed below.

The Commissioner is hereby authorized to charge any deficiency in the amount enclosed or any additional fees which may be required during the pendency of this application under 37 CFR 1.16 or 1.17 to Deposit Account No. 50-0383.

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Respectfully submitted,

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